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10/784,449	02/23/2004	Thomas F. Berkey	C4-1155	8277

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EXAMINER	
CZEKAJ, DAVID J	
ART UNIT	PAPER NUMBER
2621	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/784,449	BERKEY ET AL.	
	Examiner	Art Unit	
	DAVID CZEKAJ	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-41 and 43-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-41 and 43-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/7/09 has been entered.

Response to Arguments

On page 15, applicant argues that Nayar fails to disclose performing motion detection on raw video data. While the applicant's points are understood, the examiner respectfully disagrees. See for example Nayar figure 6. There Nayar illustrates that a frame grabber grabs frames from the camera 10 to transmit to the motion detector 92. Since the motion detection is performed before any video manipulation, the motion detection is done on the raw video data. Therefore the rejection has been maintained.

On pages 16-17, applicant argues that Nayar fails to disclose sequencing. While the applicant's points are understood, the examiner respectfully disagrees. See for example Nayar column 7, lines 1-15. There Nayar discloses that upon detection from the WAIS, the PTZ systems are moved, or sequenced, to view the region of interest. This movement, or sequencing, is performed by transmitting pan, tilt, and zoom commands. Hence, by transmitting the PTZ commands, Nayar is transmitting sequence signals to view the detection area. Therefore the rejection has been maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 3-5, 7-10, 21, 31, 33, 35-38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,215,519 to Nayar et al.

[claims 1, 31, 40]

As shown in Figure 6, Nayar teaches a video surveillance system for performing a method of monitoring a moving object. The system includes a video camera (20) and at least one motion detector (10). Nayar teaches the motion detector comprises a lens (110) and an imager (100) for receiving an image through said lens and converting said image to video data (Col 9 Lines 35-37, Col 12 Line 62- Col 13 line 13, Fig. 8). Note, the lens is fixedly directed to an area of interest (Col 3 Lines 17-22, Col 7 Lines 1-7, Col 13 Lines 21-23).

The motion detector is configured to analyze the raw video data to detect changes from a first frame to a next frame, determine changes of objects in multiple detection areas based on the presence of changes from the first to next frame, sequence between the detection areas, and provide a plurality of sequenced detector output signals corresponding to a changed object (Figure 6; column 7, lines 1-15; Col 9 Lines 37-45). Nayar further teaches the image received by the frame grabber has separate color channels (red, green, blue) (Col 10 Lines 36-42). The Applicant's

specification defines one visual perception algorithm is color space correction (Bayer to RGB to YUV) (Page 7 Lines 1-12). It would be inherent that Nayar does not perform the visual perception algorithm of color space correction since the motion detection is performed on separate color channels (red, green, blue) and not on a YUV signal.

Nayar further teaches the motion detector is configured to command the camera to independently track multiple moving objects by cycling between views of the targets (Col 9 Lines 38-61). Nayar further teaches the displaying or recording of the objects (Col 9 Line 65-Col 10 Line 3). While Nayar fails to explicitly disclose the multiple detection areas, Nayar does disclose detecting a given area within a region of interest (Nayar: column 7, lines 1-15). The examiner notes that each frame/region of interest will have many detection zones monitored by the cameras. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the multiple detection zones taught by Nayar in order to successfully track an object throughout a scene.

[claims 3 and 32]

Nayar teaches the use of a wide-angle lens and the lens has a field of view directed to an area of interest (Col 13 Line 66-Col 14 Line 8).

[claim 4]

Nayar teaches the motion detector fixedly mounted to the video camera (Col 8 Lines 26-29, Fig. 4).

[claims 5 and 33]

Nayar teaches the use of a ccd (Col 10 Line 56).

[claims 7 and 35]

Nayar teaches the use of a motion detect lens is used by camera to capture images from detection areas (Col 9 Lines 40-41, Col 11 Lines 8-18 and Lines 48-66).

[claims 8 and 36]

Nayar further teaches the motion detector comprises a controller for receiving an output of said motion detect sequencer, said controller being configured to provide said detector output (Col 9 Lines 42-45).

[claims 9 and 37]

Nayar teaches the at least one operating characteristic comprises a pan, tilt, or zoom characteristic of the video camera (Col 3 Lines 23-27).

[claims 10 and 38]

Nayar teaches the detector output is provided to modify a pan, tilt and zoom characteristic of the video camera (Col 3 Lines 23-27, Col 9 Lines 40-45).

2. Claims 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over ,215,519 to Nayar et al (6215519), (hereinafter referred to as "Nayar") in view of Egnal et al. (2005/0134685), (hereinafter referred to as "Egnal").

[claims 12 and 43]

As shown above for claims 1 and 40, Nayar teaches the system of Figure 6 and method for the system. Nayar is silent on the use of a plurality of motion detectors.

Egnal teaches a similar system to Nayar (Paragraphs [0001], [0006], Fig. 1). Egnal further teaches the use of multiple motion detectors for controlling a slave camera, in order to provide multiple types of cameras for the motion detector

(Paragraph [0041]). Egnal further teaches the ability to control a single slave camera by multiple motion detectors in order to provide high resolution images of multiple objects of interest (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the multiple motion detectors of Egnal with the system of Nayar as Egnal teaches the benefit of using multiple motion detectors for providing multiple objects of interest to a single high resolution slave camera (Egnal: Paragraph [0077]).

[claims 13 and 44]

Nayar is silent on the video data associated with the motion detectors is time multiplexed.

Egnal teaches the use of multiple motion detectors which work together to provide broader spatial coverage and/or cooperative tracking of targets (Paragraph [0097]). Egnal teaches the video of the motion detectors is time multiplexed (Paragraph [0098]). Note, it is viewed by the Examiner that the two motion detectors observing and tracking the same target at the same time is time multiplexed.

[claim 14, 15, 45 and 46]

Egnal further teaches the use of two motion detectors, where one acts as the master and the other acts as a slave. The motion detectors switch roles when an object of interest leaves the viewing area of the slave motion detector (Paragraph [0097]-[0098]). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the motion detectors of Egnal with the system of Nayar in order to

provide continued tracking as long as a target is in view for either motion detector (Paragraph [0098]).

[claims 16, 17, 47 and 48]

As shown above, Nayar and Egnal teach the system of claim 12 and method of claim 43. Nayar further teaches the placement of imagers for the motion detector are placed in a circular pattern providing a 360 degree field of view around a camera (Col 14 Lines 9-15, Figs. 4, 15A and 15B). Nayar is silent on each imager being apart of different motion detectors.

As shown in Figure 1, Egnal teaches a similar system to Nayar (Paragraph [0038]). Egnal teaches each motion detector (master camera) comprises an imager and processing units (Paragraph [0059], Fig. 2). Egnal further teaches the use of a plurality of motion detectors used to control a single camera (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide each imager of Nayar as part of a motion detector as Egnal teaches the use of multiple motion detectors for solving the problem of controlling PTZ cameras in the prior art (Paragraph [0003]).

[claims 18, 19, 49 and 50]

As shown above, Nayar and Egnal teach the system of claim 12 and method of claim 43. Nayar further teaches the placement of the camera below the motion detector (Fig. 4). Nayar further teaches the motion detector may be placed in a ring pattern (Col 14 Lines 9-14, Figs. 15A and 15B). Official Notice is taken that both the concept and advantages of annular ring are well known and expected in the art. Thus, it would have

been obvious to one skilled in the art, at the time of the Applicant's invention, to provide an annular ring for mounting the motion detectors shown by Nayar in Figures 15A and 15B as such a ring is well known in the art for mounting a plurality of sensors to provide a 360 degree field of view (Official Notice).

[claim 20]

Nayar teaches the controlling of the camera by a motion detector as described in the preferred embodiment of Figure 6. Nayar teaches an alternative embodiment where a human user controls the camera (Col 7 Lines 27-48, Fig. 2). Nayar is silent on the use of a motion detector and Human user for controlling the camera.

Egnal teaches a similar system to Nayar wherein a camera is controlled by a motion detector (Paragraph [0038], Fig. 1). Egnal further teaches the use of a Human user input for controlling a camera when multiple motion detectors are used (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Human user input of Egnal with the system of Nayar in order to define priority to motion detectors when multiple motion detectors are used, as taught by Egnal (Paragraph [0077]).

[claims 21, 39 and 51]

Nayar teaches the imager is a low resolution imager compared to the camera (Col 3 Lines 17-22).

[claim 22]

As shown in Figure 6, Nayar teaches a video surveillance system. The system includes a video camera (20) and at least one motion detector (10). Nayar teaches the

motion detector comprises a lens (110) having a field of view fixedly directed to an area of interest, and an imager (100) for receiving an image through said lens and converting said image to video data (Col 9 Lines 35-37, Col 12 Line 62- Col 13 line 13, Fig. 8). Note, the lens is fixedly directed to an area of interest (Col 3 Lines 17-22, Col 7 Lines 1-7, Col 13 Lines 21-23).

The motion detector is configured to monitor the video data for movement of an object in said field of view and to provide a detector output in response to said movement of said object, said detector output being configured to cause adjustment of at least one operating characteristic of said video camera to target said camera on said object (Col 9 Lines 37-45). Nayar further teaches the image received by the frame grabber has separate color channels (red, green, blue) (Col 10 Lines 36-42). The Applicant's specification defines one visual perception algorithm is color space correction (Bayer to RGB to YUV) (Page 7 Lines 1-12). It would be inherent that Nayar does not perform the visual perception algorithm of color space correction since the motion detection is performed on separate color channels (red, green, blue) and not on a YUV signal.

Nayar teaches the at least one operating characteristic comprises a pan, tilt, or zoom characteristic of the video camera and is used to modify a pan tilt and zoom characteristic of the video camera (Col 3 Lines 23-27, Col 9 Lines 40-45).

Nayar further teaches the ability to record to a recording media the video output by the camera (Col 10 Lines 1-9). Nayar teaches the use of such a system for surveillance (Col 1 Lines 14-17). Nayar is silent on a command to record.

Egnal teaches a security system is used to record video from a camera for later viewing (Paragraph [0002]). Egnal further teaches a desired point to record is during a robbery in order to capture high-resolution video of the robber (Paragraph [0003]). Egnal teaches the use of a similar system to Nayar for spotting unusual activity and then using a PTZ camera to zoom in and record recognition and location information (Paragraph [0004]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine an indicator for recording as taught by Egnal with the system of Nayar in order to record recognition and location information of an unusual activity as taught by Egnal (Paragraph [0003]).

[claim 24]

Nayar teaches the motion detector fixedly mounted to the video camera (Col 8 Lines 26-29, Fig. 4).

[claim 25]

Nayar teaches the use of a ccd (Col 10 Line 56).

[claim 27]

Nayar teaches the use of a motion detect sequencer configured for monitoring said video data for said movement of said object (Col 9 Lines 40-41, Col 11 Lines 8-18 and Lines 48-66).

[claim 28]

Nayar further teaches the motion detector comprises a controller for receiving an output of said motion detect sequencer, said controller being configured to provide said detector output (Col 9 Lines 42-45).

[claim 29]

Nayar teaches the controlling of the camera by a motion detector as described in the preferred embodiment of Figure 6. Nayar teaches an alternative embodiment where a human user controls the camera (Col 7 Lines 27-48, Fig. 2). Nayar is silent on the use of a motion detector and Human user for controlling the camera.

Egnal teaches a similar system to Nayar wherein a camera is controlled by a motion detector (Paragraph [0038], Fig. 1). Egnal further teaches the use of a Human user input for controlling a camera when multiple motion detectors are used (Paragraph [0077]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the Human user input of Egnal with the system of Nayar in order to define priority to motion detectors when multiple motion detectors are used, as taught by Egnal (Paragraph [0077]).

[claim 30]

Nayar teaches the imager is a low resolution imager compared to the camera (Col 3 Lines 17-22).

[claim 52]

As shown above for claim 40, Nayar teaches a method for monitoring a moving object. Nayar further teaches the ability to monitor multiple objects (Col 9 Lines 40-55).

[claim 53]

Nayar further teaches the use of a PTZ scheduling unit which inputs the objects being tracked and provides time sharing capabilities. The output of the PTZ scheduling unit is received by a PTZ driver which provides the commands to the camera in order to

spend a predetermined amount of time on each object that is tracked (Col 9 Lines 46-64).

[claim 55]

Nayar teaches the use of a wide-angle lens (Col 13 Line 66-Col 14 Line 8).

3. Claims 2, 6, 23, 26 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nayar and Egnal in view of US Patent 6,830,38 to Kajino et al.

[claims 2 and 23]

Nayar and Engal teach the surveillance systems of claims 1 and 22 as shown above. Nayar and Egnal are silent on the camera comprising a dome.

Kajino teaches a controllable camera comprising a dome (Abstract, Col 9 Lines 22-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the controllable camera of Nayar within a dome as Kajino teaches the use of a dome in a preferred embodiment of a controllable camera (Col 9 Lines 22-35).

[claims 6, 26, and 34]

Nayar teaches one of the detector output signals causes the motion detector to zoom in on the detection areas (Nayar: column 7, lines 1-15, wherein the zoom is within the PTZ signals).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CZEKAJ whose telephone number is (571)272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dave Czekaj/
Primary Examiner, Art Unit 2621